DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
2000 NAVY PENTAGON
WASHINGTON, D.C. 20350-2000

IN REPLY REFER TO
OPNAVINST 11102.2
N46
31 Oct 07

OPNAV INSTRUCTION 11102.2

From: Chief of Naval Operations

Subj: TRAINING SYSTEM INSTALLATION AND TRANSFER

Ref: (a) NAVSO P-1000, DON Financial Management Policy Manual, Paragraph 075365, "Military Training Facilities, Equipment and Support Costs"
(b) OPNAVINST 1500.76A
(c) OPNAVINST 11010.20G
(d) SECNAVINST 7320.10A
(e) OPNAVINST 4790.4D

Encl: (1) Glossary of Abbreviations/Acronyms and Terms
(2) Instructions for the Preparation of Training System Installation Plans (TSIPs)

1. Purpose. To establish policy, responsibilities, and procedures for the identification of training system installation requirements, planning, execution and the coordinated transfer of training responsibilities from the Training Support Agency (TSA) to the Training Agency (TA) as defined in reference (a).

2. Discussion. The provisions of this instruction are applicable to all situations where procurement of or modification to training systems (e.g., Technical Training Equipment (TTE)/Training Devices (TD)/Simulators and logistic support) is required to establish or sustain formal training at Naval training commands, other Naval commands which conduct formal training courses, and at other DOD facilities where training is conducted under U.S. Navy auspices. For all such procurements, a Training System Installation Plan (TSIP), formerly Training Equipment Facility Requirement (EFR), shall be prepared to (a) define facility requirements, including Military Construction (MILCON) and Special Projects, for installation of the training system; (b) identify all associated logistic support elements; and (c) transfer training responsibility from the TSA to the TA. The TSIP shall be an integral part of the system acquisition process and will support introduction of new training systems and equipment, which are planned following reference (b), training system changes, as well as sustaining requirements. Enclosure (1) contains the Glossary of Terms.

3. Policy. Action will be taken to develop TSIPs to meet the Program Sponsor established Ready for Training (RFT) dates, per reference (b). Close liaison between the TSA and TA, and/or

their designated representatives shall be maintained throughout the process.

a. The TSA shall notify the TA at system acquisition initiation to assist in identifying available space.

b. The TSA in coordination with the TA shall conduct preliminary and engineering site surveys to determine the extent of facility impacts.

c. The TSIP shall be developed to support all training system procurements directed by the Chief of Naval Operations (Program Sponsor) and accomplished by the TSA (i.e., Program Managers (PMs), and Systems Commands).

d. The TSIP shall identify all elements of a supportable training system so that early planning, programming, budgeting, and other TSIP related actions can be initiated by the TSA and TA. The TSIP will identify all facility impacts, actions needed to mitigate the impacts and activities responsible for completing the actions.

e. The TSIP shall specify all actions required to install the new or modified Navy training system and execute transfer from the TSA to the TA.

4. Responsibilities

a. The Chief of Naval Operations is responsible for

(1) Providing policy and procedural guidance, and coordinating for planning and executing the TSIP Program. (Deputy Chief of Naval Operations (Fleet Readiness and Logistics)) (CNO (N4)).

(2) Monitoring the development, implementation and effectiveness of the TSIP Program. (Program Sponsors)

(3) Maintaining formal liaison with Fleet Commanders, Type Commanders, COMNAVRESFOR, cognizant TSA/TAs and inter-service agencies or services in the case of joint programs. (Program Sponsors)

(4) Establish repository for TSIPs in the Navy Knowledge Online (NKO) website. (Program Sponsors)

b. Training Support Agency (TSA) is responsible for:

(1) Developing and implementing the TSIP, in coordination with the TAs and their designated representatives.

(a) Providing early identification of the training system, training system change, and associated logistic support materials, including curriculum, to be delivered to the TA.

(b) Identifying to the TA, facility requirements (i.e., air, water, power, space, etc.) to support installation of the training system and training system changes.

(c) Transferring Plant Property to Commander, Navy Installations Command/Navy Region or their designated representatives in accordance with references (c) and (d).

(d) Planning and conducting the training system testing and participating in the transfer of responsibility for the training system to the TA, including monitoring program deficiencies agreed upon by the TSA and TA until all deficiencies are resolved and final transfer is accomplished.

(2) Maintaining liaison with cognizant offices and commands throughout the process.

(3) Providing updates, as required, to the TSIP, resulting from programming, reprogramming, budget changes, development or production schedule changes, weapon system and training system modifications, MILCON schedule changes, etc. Advise all other TSIP principals of circumstances and requirements for updates.

(4) Monitoring TSIP execution and the status of deficiency resolution.

(5) Developing and delivering OPNAV 4790/CK Ship's Configuration Change Form and OPNAV 4790/CK9c) Ship's Configuration Change Form Continuation to the TA to support configuration management of installed/delivered training assets in accordance with reference (e).

c. The Training Agent (TA) is responsible for:

(1) Designating representative(s) for active participation with the TSA.

(2) Designating points-of-contact, at each echelon level, (e.g., Learning Centers, Learning Facilities, etc.) who will be associated with the proposed installation and delineating their authority and responsibilities.

(3) Participating in the planning, development, implementation and review of TSIPs.

(a) Providing early identification of facilities (i.e., buildings, spaces, utilities, etc.) required and/or available to accommodate the establishment of a training system.

(b) Coordinating facility impacts with the host command, as appropriate.

(c) Requesting programming of MILCON and Special projects, when applicable, as a result of requirements identification and in accordance with reference (c).

(d) Participating in the testing of the new or modified/changed training system.

(e) Accepting the transfer of responsibility for the training system from the TSA, and monitoring program deficiencies agreed upon by the TA and TSA until all deficiencies are resolved.

(f) Providing local Naval Facilities representatives with TSA delivered facility drawing updates.

(4) Providing the TSA with input for the update of TSIPs through final acceptance.

(5) Compiling of TSIPs for identification and inclusion in the Shore Facility Planning System, following the provisions of NAVFACINST 11010.44E, Shore Facilities Planning Manual, and NAVFACINST 11010.45, Site Approval Process.

(6) Maintaining liaison with all cognizant offices and commands throughout the TSIP process.

(7) Providing OPNAV 4790/CKs (hardcopy or electronic) to the Configuration Data Manager for incorporation in the Configuration Data Manager's Database - Open Architecture (CDMD-OA). This ensures appropriate configuration management of new and modified training capabilities.

d. Commander, Navy Installations Command (CNIC) is responsible for:

(1) Participating in preliminary and engineering site surveys.

(2) Maintaining liaison with cognizant offices and commands throughout the process.

(3) Reviewing TSIPs to ensure facility impacts have been addressed and that potential risks are adequately mitigated.

(4) Planning, programming, budgeting and executing MILCON and Special Projects in accordance with reference (c).

(5) Monitoring facility changes to ensure all requirements have been satisfied.

(6) Accepting Plant Property transfer in accordance with references (c) and (d).

(7) Maintaining configuration of learning facility drawings.

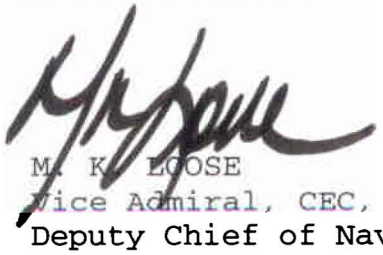
5. Action

a. Each TSA introducing or developing a new, modified, or changed training system shall prepare and provide TSIPs to the TA, documenting the installation of every training system or training system change, through final acceptance.

b. All TSIPs shall be prepared in a format as outlined in enclosure (2). Copies of the TSIP (initial and all subsequent updates) will be distributed to all commands, activities, and offices concerned with and participating in the procurement, installation, transfer, and ultimate use of the training system.

c. Training system change documents shall be prepared using the instructions contained in enclosure (2) or other OPNAV and Systems Command approved change documents (e.g., Field Changes, Engineering Change Instructions, Ordnance Alterations, etc.). The TSIPs and training system changes shall be posted on NKO, where all parties will have access to them in a read only format.

6. Forms OPNAV 4790/CK Ship's Configuration Change Form and OPNAV 4790/CK9c) Ship's Configuration Change Form Continuation are available for download at Navy Forms Online https://forms.daps.dla.mil.



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ABBREVIATIONS/ACRONYMS

3M	Ships' Maintenance and Material Management
AC	Alternating Current
ADP	Automated Data Processing
AEL	Allowance Equipage List
ANSI	American National Standards Institute
APL	Allowance Parts List
BOD	Beneficial Occupancy Date
BTU	British Thermal Unit
BUMED	Bureau of Medicine and Surgery
C4I	Command, Control, Communications, Computers, and Intelligence
CASE	Certification Assessment & Summary Evaluation
CDM	Configuration Data Manager
CFM	Contractor Furnished Material
CDM	Configuration Data Manager
CFE	Contractor Furnished Equipment
CII	Configuration Item Index
CIN	Course Identification Number
CNI	Commander, Navy Installations
CNIC	Commander, Navy Installations Command
CNO	Chief of Naval Operations
COG	Cognizant
COMM	Commercial
COTS	Commercial-Off-the-Shelf
CR	Completion Report
CY	Calendar Year
DC	Direct Current
DCNO	Deputy Chief of Naval Operations
DFARS	Defense Federal Acquisition Regulation Supplement
DID	Data Item Description
DISA	Defense Information Systems Agency
DMSO	Defense Modeling and Simulation Office
DoD	Department of Defense
DoN	Department of the Navy
DSN	Defense Switching Network
ECW	Electronic Cooling Water
EDD	Estimated Delivery Date
EFR	Training Equipment Facility Requirement
EIC	Equipment Identification Code
EM	Electro-magnetic
EMC	Electro-magnetic Control
EMI	Electro-magnetic Interference
FLTCOM	Fleet Command
FMR	Financial Management Regulation
FRCB	Fleet Readiness Certification Board
FSCM	Federal Supply Code for Manufacturers
FTSR	Feeder Telecommunication Service Request
FY	Fiscal Year
GEN	General
GFE	Government Furnished Equipment
GFM	Government Furnished Material
HSC	Hierarchical Sequence Code

HVAC	Heating, Ventilation and Air Conditioning
HW/SW	Hardware/software
HZ	Hertz
ICR	Installation Design Documentation Completion Report
IDD	Installation Design Documentation
IDP	Installation Design Plan
ILS	Integrated Logistics Support
IMI	Interactive Multi-media
LNA	Local Naval Authority
LRU	Lowest Replaceable Unit
MIL	Military
MILCON	Military Construction
MIP	Maintenance Index Page
MP	Maintenance Plan
MRC	Maintenance Requirement Card
NAVAIR	Naval Air Systems Command
NAVAIR TSD	NAVAIR Orlando, Training Systems Division
NAVFAC	Naval Facilities Engineering Command
NAVSEA	Naval Sea Systems Command
AVSUP	Naval Supply Systems Command
NETC	Naval Education and Training Command
NETWARCOM	Naval Network Warfare Command
NICN	Navy Item Control Number
NIIN	National Item Identification Number
NKO	Navy Knowledge Online
No.	Number
NSN	National Stock Number
NTSP	Navy Training Systems Plan
O&M	Operation and Maintenance
OBRP	Onboard Repair Parts
OPNAV	Office of the Chief of Naval Operations
PFM	Pre-faulted Module
PM	Program Manager
PMS	Preventive Maintenance System
POA&M	Plan of Action and Milestones
POC	Point of Contact
POL	Petroleum, Oil and Liquids
QTY	Quantity
REV	Revision
RF	Radio Frequency
RFT	Ready for Training
RFU	Ready for Use
RIC	Repairable Identification Code
SCAT	Subcategory
SNDL	Standard Navy Distribution List
SPAWAR	Space and Naval Warfare Systems Command
SPEC	Special
SSM	Ship Systems Manual
TA	Training Agent
TBD	To Be Determined
TD	Training Device
TM	Technical Manual
TSA	Training Support Agent

TSIP	Training System Installation Plan
TTE	Technical Training Equipment
TUE	Training Unique Equipment
UIC	Unit Identification Code
UID	Unit Identification
VAC	Volts Alternating Current
VDC	Volts Direct Current

GLOSSARY OF TERMS

FACILITY - A separate, individual building, structure, or other form of real property including land, which is subject to separate reporting under the Department of Defense real property inventory.

FACILITY REQUIREMENTS - The facilities required by a shore (field) activity to perform its mission, tasks and functions and to support assigned forces.

INSTALLATION DESIGN DOCUMENTATION (IDD) - A compilation of all documents that describe, test and report the installation at a training facility. The IDD includes an Installation Design Plan (IDP) and is an attachment to the Training System Installation Plan (TSIP) and provides details on the work planned and material requirements for site preparation and training system installation to be performed by the TSA in conjunction with a new or modified training capability. This package includes a detailed schedule for execution of all requirements, a complete set of drawings, checkout and acceptance testing plans, and lists of site preparation and installation materials associated with the planned installation. In addition to its use in conjunction with the TSIP, it can also be used as a standalone document, (i.e., TSIP Short Form, for executing a change to an existing training asset when little or no facility impact is identified).

INSTALLATION DESIGN PLAN (IDP) - A set of electrical/electronic and structural drawings detailing and illustrating the installation and connection of a training system being modified or newly installed.

NAVY TRAINING SYSTEM PLAN (NTSP) - The principal document for defining manpower, personnel and training (MP&T) requirements for new developments, including the resources (billets, training material, military construction) necessary to support the training system. It controls the planning and implementing activities for meeting the MP&T requirements of the new development and to produce trained personnel required to install, operate, maintain or otherwise use the new development being introduced into the Navy.

PLANT PROPERTY - Can be classified as Class 2 and 3 real and personal property. Real property improvements to land are Class 2 property. Class 2 property can include improvements such as utilities located within a building or structure. Class 2 property also includes installed or "built-in" equipment as defined by reference (c) (paragraph 4.1.1.h). Class 3 personal property of a capital nature, other than industrial plant equipment, having an estimated fair market value or initial acquisition cost that meets or exceeds the DOD capitalization threshold of $100,000. (See FMR Volume 4, Chapter 6, paragraph 060103.) Personal property includes Class 3 and Class 4 plant

property, and ancillary equipment in support of end items of personal property.

PROGRAM SPONSOR - An OPNAV Principal Official (OPO) who, by organizational charter, is responsible for determining program objectives, time phasing and support requirements, and for appraising progress, readiness, and military worth for a given system, function or task.

READY FOR TRAINING (RFT) - The date a training system and its associated logistics, maintenance, syllabus, and instructors are certified to be available for training at the learning facility. This date is predicated on the availability of a new, modified, or rehabilitated learning facility for training purposes. All aspects of the facility must be ready including building completion, completed site preparation, training system installation and testing, trained instructors, furnishings, (e.g., non-technical collateral equipment, etc.). This is the ultimate planning date for the new, modified, and changed training system and its readiness for use.

SUSTAINING REQUIREMENTS - Training System identified by the TA and budgeted for by the TSA to overhaul, replace existing equipment, or as supplemental equipment to meet increased training requirements.

TECHNICAL TRAINING EQUIPMENT (TTE) - Training Equipment for which TSAs, (i.e., Program Managers (PMs)), or Systems Commands have the responsibility for the design, development, modernization, or selection for service or special use.

TESTING - Testing is the performance of detailed procedures to ensure that (a) all site preparation work has been completed satisfactorily, (b) pre- and post-training system installation has been completed satisfactorily, and (c) that all elements of the training system are functionally integrated.

TRAINING AGENT (TA) - An office, command, or headquarters exercising command of and providing support to some major increment of the Navy's formalized training effort (e.g., NETC, FLTCOMs, BUMED, etc.).

TRAINING DEVICE (TD) - The hardware and software, that has been designed or modified exclusively for training purposes, involving to some degree, stimulation or simulation in its construction or operation so as to demonstrate or illustrate a concept or simulate an operational circumstance or environment.

TRAINING SUPPORT AGENT (TSA) - An office, bureau, command or headquarters responsible for supporting the Training Agent by providing material and other forms of support within the cognizance of the office, or command involved.

TRAINING SYSTEM - A systematically developed curriculum including but not necessarily limited to, courseware; classroom aids; training simulators and devices; operational equipment; embedded training capability; and trained personnel to operate, maintain, or employ a system. The training system includes all necessary elements of logistic support.

TRAINING UNIQUE EQUIPMENT (TUE) - Training only equipment such as simulators, stimulators, modified operational equipment, and some Commercial Off the Shelf and Non-developmental Items specifically designed or purchased as an integral part of a training system. TUE may involve some features similar to a Training Device, but is not Cog 2"0" managed. TUE is essentially one of a kind, purpose built or procured for training only purposes. A key element of TUE is that, due to its unique nature, Life cycle logistics typically is not available within the standard Navy support. Therefore, close attention must be given by the TSA to ensure life cycle, in-service and sustaining support is provided the TA.

TSIP CONDITIONAL ACCEPTANCE - TA accepts the training system, conditional upon completion of outstanding deficiencies. Three conditions must be met prior to a conditional acceptance. The learning facility must be able to meet all training objective, must have the ability to maintain the equipment in an operating condition, and the training system must be safe to operate.

TSIP FINAL ACCEPTANCE - TA accepts the training system, signifying that there are no outstanding deficiencies.

Instructions for the Preparation of Training System Installation Plans (TSIPs)

Introduction

1. A Training System Installation Plan (TSIP) serves as the document for the following:

- Identifies plans for a specific installation;
- Identifies the training support package;
- Installs Technical Training Equipment (TTE), Simulators, and Training Devices (TD);
- Identifies facility requirements necessary to support the establishment of a training capability at a Naval Learning Facility; and
- Formally transfers ownership from the Training Support Agent (TSA) to the Training Agent (TA).

2. A representative process diagram(s) is provided as Figures 1 through 6. The TSIP should be developed with a lead-time of six (6) years for major Military Construction (MILCON), Major Demolition/Build New Bldg (paid by MILCON funds 750K to 1.5M) 37+ months; Special Installation (Demolition paid by TSA funds up to 750K) 24 months; Installation Only (for Equipment Installations with minimal facility impacts) 14+ months; and Installation Only (Accelerated Schedule) eight (8) months prior to the projected Ready for Training (RFT) date. When MILCON is required, the schedule allows sufficient time for the Training Agent (TA) MILCON planning, programming, and budgeting process. When MILCON is not required, this time is used by the TSA and the TA to identify all requirements (equipment and support) and to plan for the installation, be it a Special Project or routine installation (NAVFACINST 11010.44E, Shore Facilities Planning Manual, and NAVFACINST 11010.45, Site Approval Process). Depending on the complexity, additional time may be allocated for project completion, that is, site preparation and installation of the training system.

3. The Installation Design Documentation (IDD) is an integral component of the TSIP. The IDD includes the Installation Design Plan (IDP) drawings and associated procedures for the test and check out of the facility support and training equipment. The IDD is intended to identify the general requirements associated with all types of training equipment installations that impact facility support, but is NOT intended as the only format for developing the documentation for a given design. It is specifically the intent of this instruction to avoid duplication of data and effort while maintaining minimum data requirements that effectively support installation and transfer of a Naval training capability. Each TSIP must reflect the most current and accurate information available (e.g., Phase II data), to the maximum extent possible, will be included with a Phase I submission.

4. After project identification, a Trainer Change Proposal (CP) Form, Figure 7, or facsimile is filled out by the TSA and submitted to the TA for concurrence, preferably via e-mail. Upon TA concurrence, the TSA will assign a TSIP number and the project will be reported on the NKO web site. Following document number assignment an Initial TSIP (Phase I) is filled out and forwarded to the TA. The TSIP shall be released as a total plan to include all three phases. During development and upon submission, all currently available data will be included. It is preferred that data submission be done electronically as well, with the exception of large or detailed drawing packages which may be in a format (i.e., AutoCAD) not readily usable by the reviewers. On revision, all phases that have not been executed (signed by the TSA and TA) will be updated. A signed TSIP and updates are considered a binding agreement and is historical data. In sections where complete and detailed information is not immediately available, a paragraph or statement of intent shall be provided in lieu of "To Be Determined (TBD)" or leaving a section blank. If a particular section is not applicable, so state. Include any drawings and depictions that may serve to amplify the TSIP data. The TSIP Schedule shall be maintained to reflect all updates to the TSIP through final acceptance.

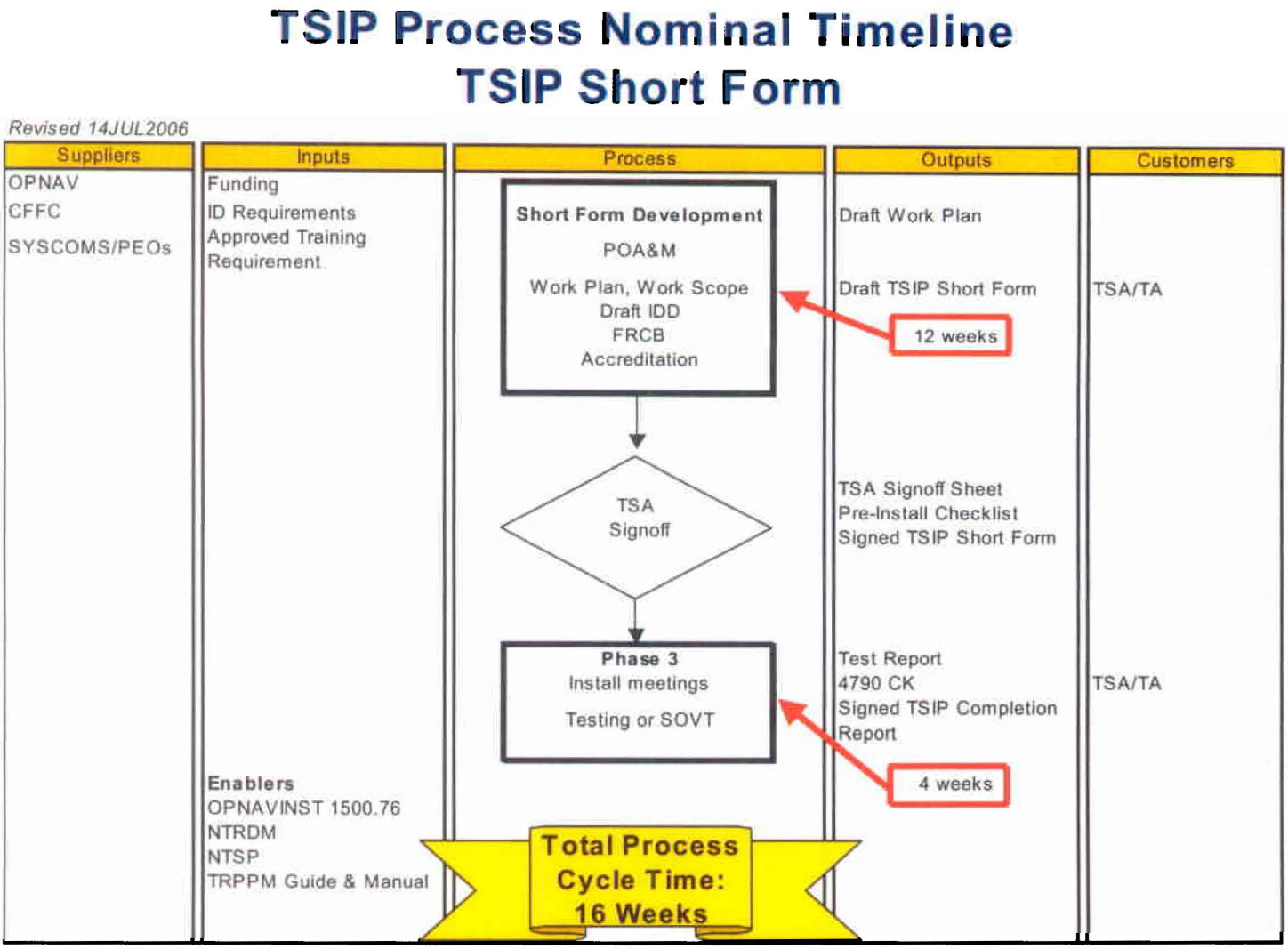


Figure 1. 16 Weeks Process Time

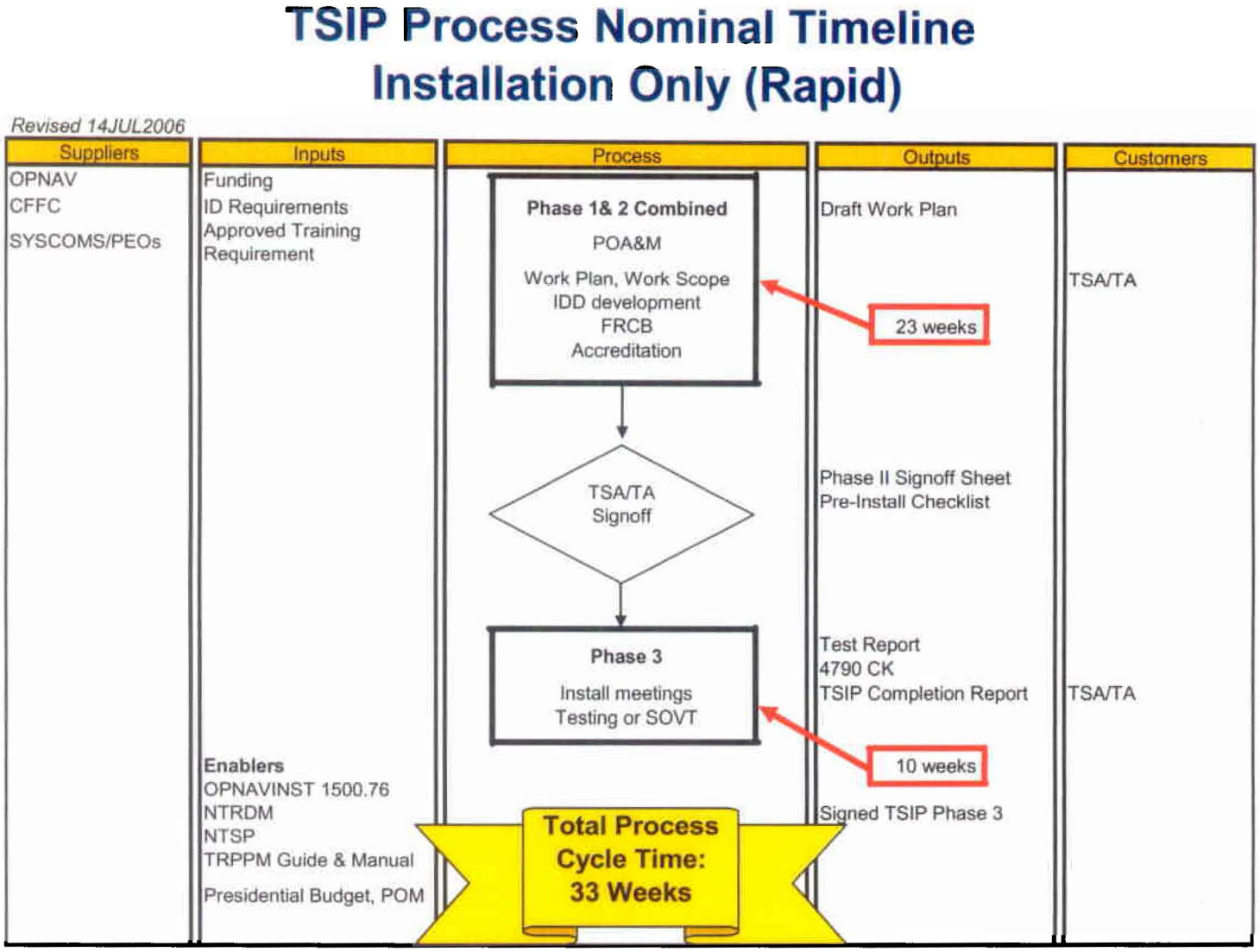


Figure 2. 33 Weeks Process Time

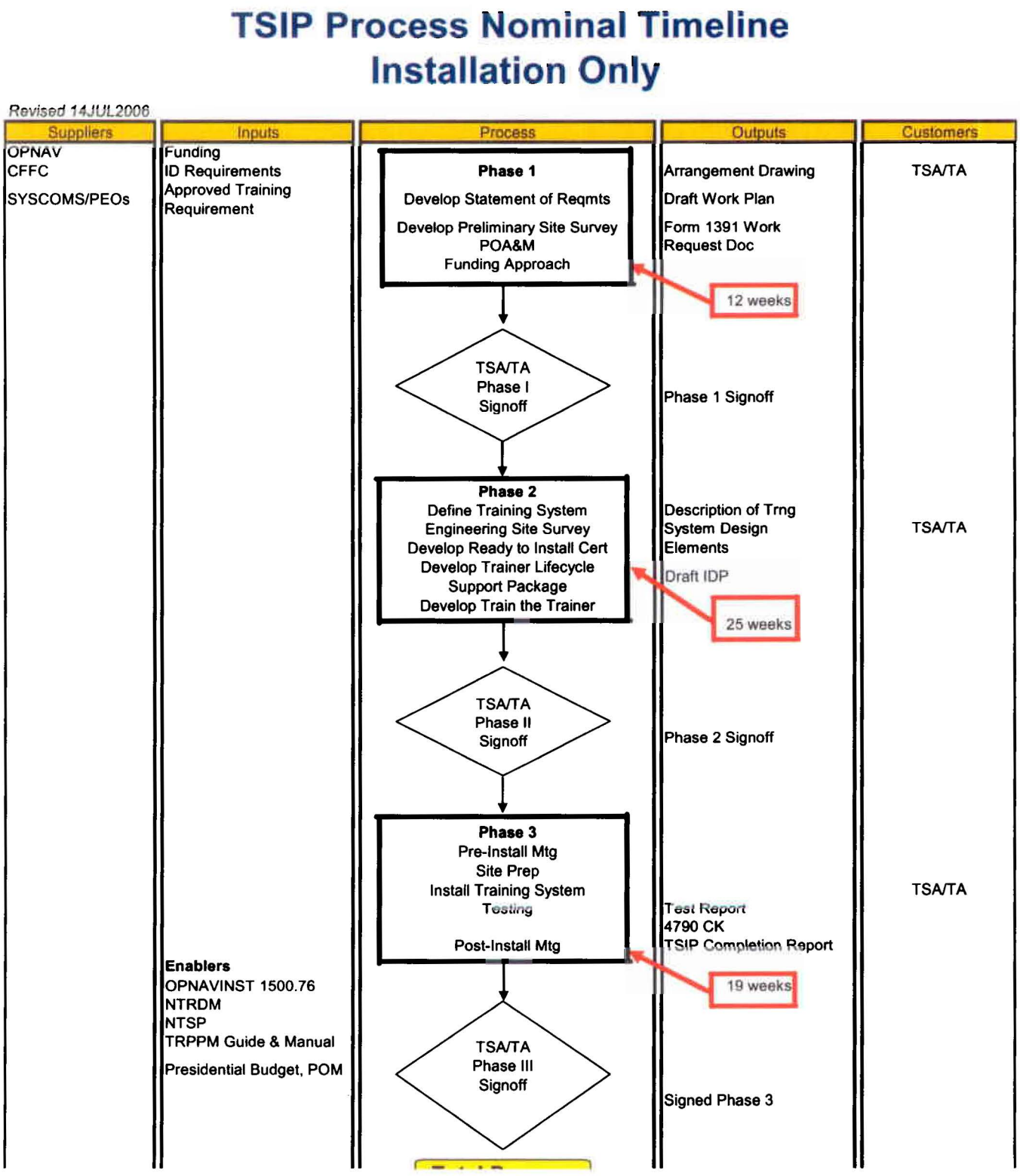


Figure 3. 56 Weeks Process Time

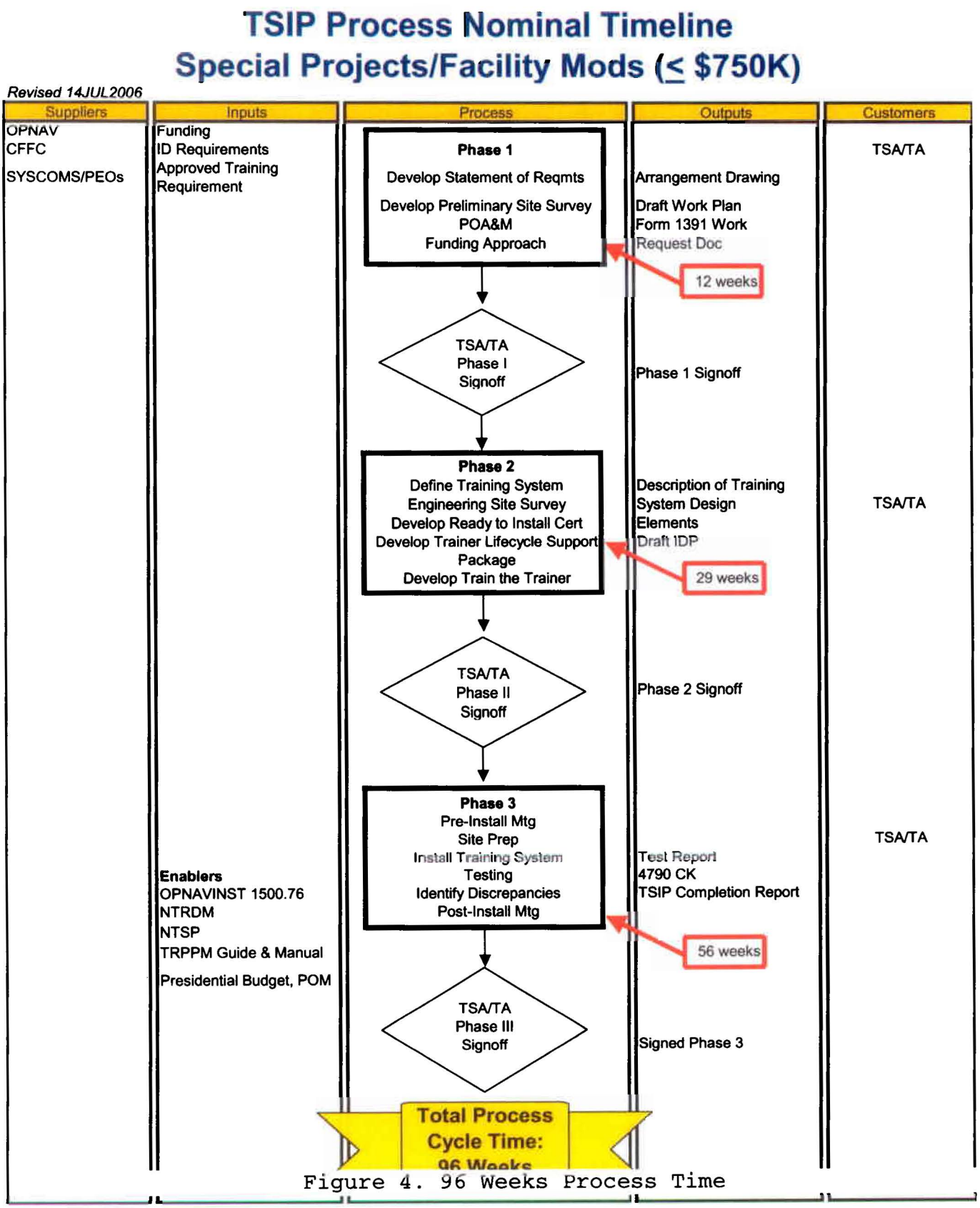


Figure 4. 96 Weeks Process Time

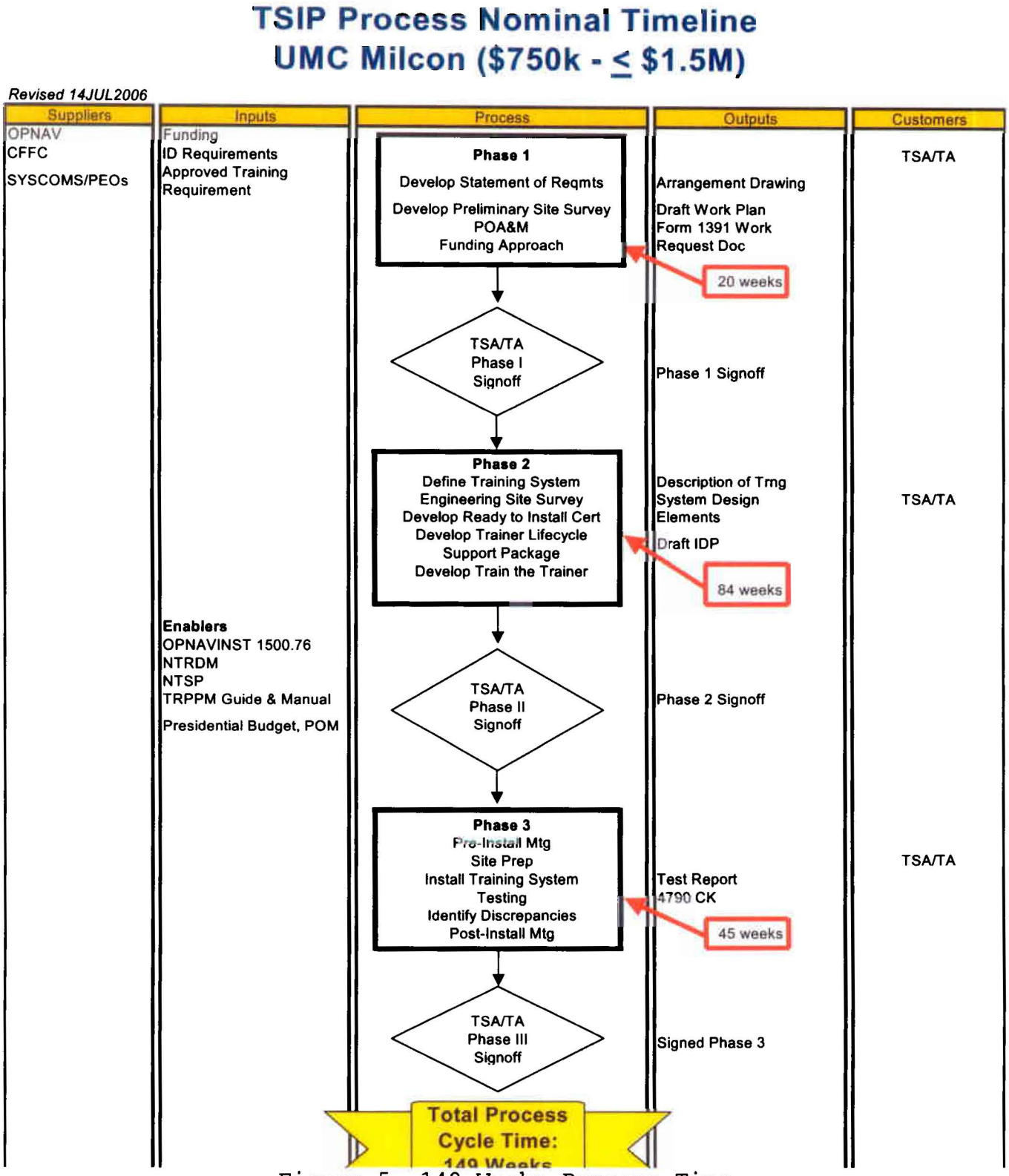


Figure 5. 149 Weeks Process Time

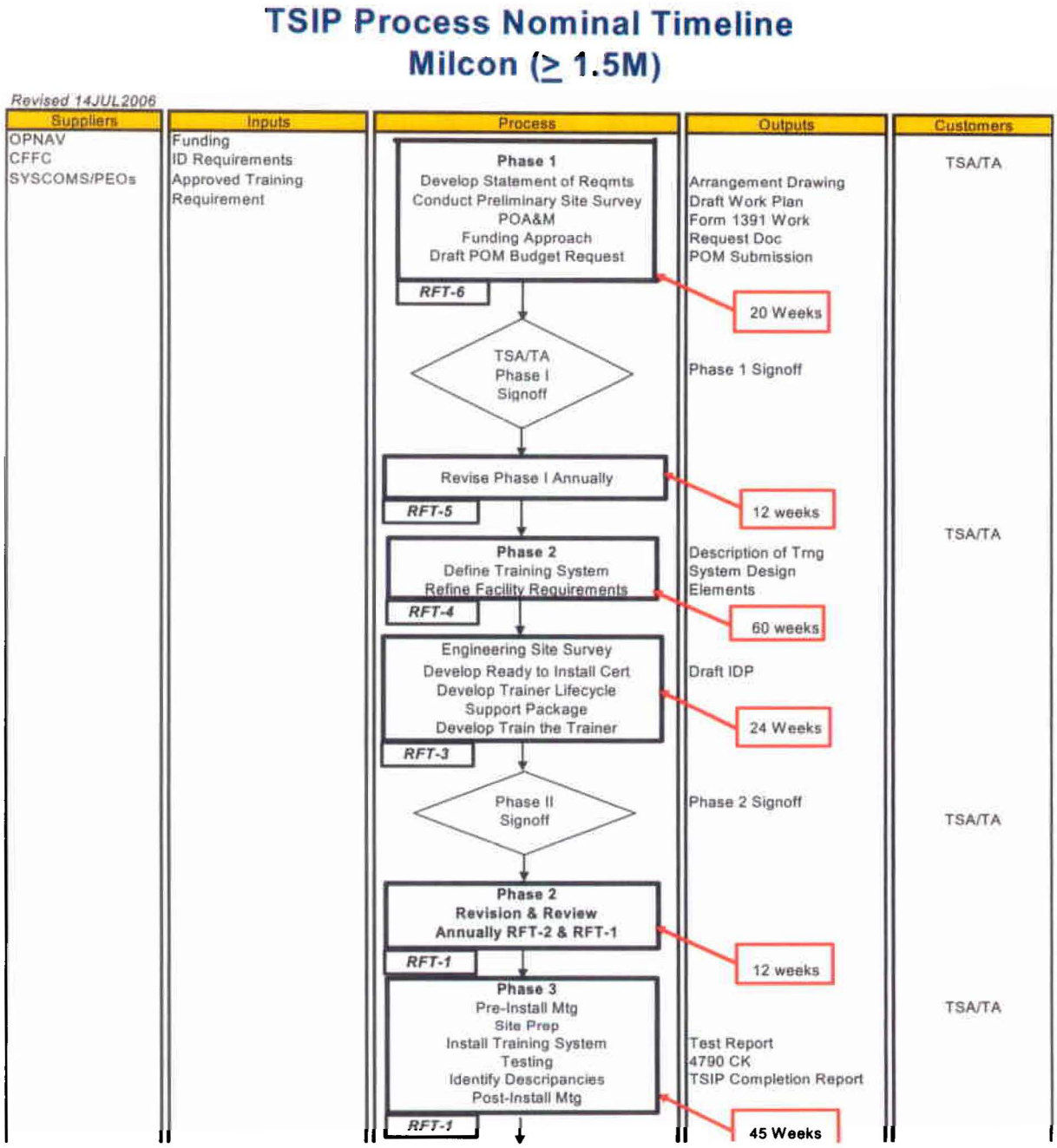


Figure 6. 312 Weeks Process Time

TRAINER CHANGE PROPOSAL (CP)

FROM: *(Code and name of Program Manager originating request.)*

TO: *TSA (with appropriate contact information)*

SUBJ: **Request for Approval to Develop:** ☐ **TSIP** ☐ **TSIP (Short Form)**

Project Title: *(Brief Title of training equipment installation)*

Executive Summary: *(Provide a high level summary of what this change accomplishes, why this change is needed, and provide all references that established the requirement for this installation - (NTSP, OPNAV Requirement, etc.) Identify all / any facility impacts anticipated, if none, so state.)*

Applicable Ship Classes: *(Identify applicable ship classes as appropriate) i.e.:*

Applicable Learning Facilities *(Identify applicable learning facilities as appropriate) i.e.:*

Bldg. & Room No. : *(If known)*

Related Changes: *(List all related changes and specify if pre-requisite or conjunctive with this change)*

Program Manager: *(SYSCOM Manager responsible for tactical system)*
Name: _____
Code: _____
Phone (DSN/COM): _____
E-mail: _____

Training Support Agent: *(Activity responsible for training program, if different from Program Manager)*
Name: _____
Code: _____
Phone(DSN/COM): _____
E-mail: _____

Installation Activity and Document Preparer *: *(* If different - Please specify)*
Name: _____
Code: _____
Phone (DSN/COM): _____
E-mail: _____

Figure 7. Trainer Change Proposal - Sheet 1 of 2

TRAINER CHANGE PROPOSAL (CP)

(Complete either the TSIP or TSIP Short Form schedules as applicable)

TSIP Development and Installation Schedule:

(1)	Preliminary Site Survey	_____
(2)	Phase I TSIP Submittal to TSA:	_____
(3)	Engineering Site Survey:	_____
(4)	Phase II TSIP Submittal to TSA:	_____
(5)	Stage Installation and ILS:	_____
(6)	Installation Start:	_____

TSIP Short Form Development and Installation Schedule:

(1)	Site Survey (If Required):	_____
(2)	Start TSIP Short Form Development:	_____
(3)	Complete TSIP Short Form Development:	_____
(4)	Draft TSIP Short Form Submittal to TSA:	_____
(5)	Final TSIP Short Form Submittal to TSA:	_____
(6)	Stage Installation and ILS:	_____
(7)	Installation Start:	_____

Remarks: *Attach additional pages as desired to provide amplifying information to assist in understanding the proposed change.*

Signature: _____
Date: _____

****

Change Review Board Approval

Change Proposal is: ☐ **Approved** ☐ **Disapproved**

Number _____ is assigned for development of this change.

Copy to:
TSA Internal Codes
Appropriate Learning Center
Learning Facility
ISEA

Figure 7. Trainer Change Proposal - Sheet 2 of 2

5. The TSA/Installing Activity will ensure that TSIP development and execution status is reported to the TSA and TA and assist in coordinating accomplishment of the schedule leading to RFT and final acceptance. TSA/Installing Activity will also chair the Pre-Installation and Post Installation briefs using an agenda, minutes/report, and checklists.

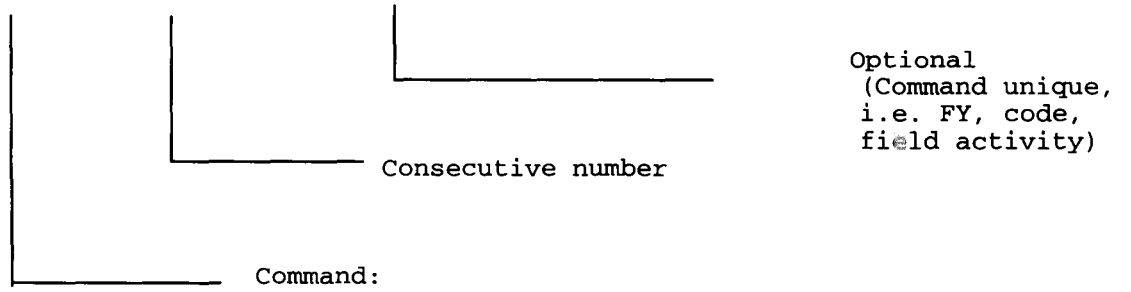
6. When submitting Phase I, all data should be filled in including Phase II data. As the principal document stating training system facility support requirements and all logistic support elements necessary to support the establishment of a training system at a Naval Learning Facility, the complete TSIP must reflect the most current information available.

7. The TSIP is intended to provide a format to consolidate the relevant data to be provided to the TA in support of a planned installation. Individual TSAs (i.e., Program Managers (PMs)) or Systems Commands may develop TSIPs which contain additional and clarifying information. TSIP contains the typical considerations necessary to provide a new training capability to, or extensively modify an existing training asset at a learning facility.

8. In those cases where a change to an existing training asset does not impact the facility infrastructure, a modified IDD, TSIP Short Form, can be used as a standalone document. The TSIP Short Form can be recommended by the TSA in the CP, but only used after a training system was installed by a TSIP or the former EFR. This document does not preclude the use of other approved change documents that fully address these minimum data elements.

9. A TSIP identification system, assigned by the TSA, will be utilized to facilitate tracking and identification of TSIP Plans. The first character identifies the TSA's command, followed by a consecutively assigned number, which is unique to each TSIP. An additional four characters may be assigned for further command identification. An example of the identification system is provided as follows:

S - O O O 1 (__) add optional tracking number.



A - NAVAIR,
F - NAVFAC,
N - NAVAIR TSD,
U - NAVSUP,
E - SPAWAR,
M - BUMED,
S - NAVSEA (Surface), SS - NAVSEA (Submarine)
X - Other

TSIP _ – _ _ _ _- (_)

TRAINING SYSTEM INSTALLATION PLAN (TSIP)

FOR

TRAINING SYSTEM INSTALLATION AND TRANSFER

OF

[SYSTEM/EQUIPMENT NOMENCLATURE]

AT

[NAME AND LOCATION OF LEARNING FACILITY TO RECEIVE THE INSTALLATION]

[TA COMMAND LOGO]

DATE [ORIGINATION]
REVISED [LATEST DATE OF REVISION]

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PHASE I INITIAL AGREEMENT

FACILITY REQUIREMENTS IDENTIFICATION

(PRELIMINARY SITE SURVEY)

FOR

[SYSTEM/EQUIPMENT NOMENCLATURE]

AT

[NAME AND LOCATION OF LEARNING FACILITY TO RECEIVE THE INSTALLATION]

TRAINING SYSTEM INSTALLATION PLAN (TSIP)
PHASE I INITIAL AGREEMENT
FACILITY REQUIREMENTS IDENTIFICATION
(PRELIMINARY SITE SURVEY)
TSIP _ – _ _ _ _- (_)

The initial TSIP documentation (preliminary site survey) for facility requirements identification for [System/Equipment Nomenclature] is provided in accordance with OPNAVINST 11102.1.

FACILITY REQUIREMENT SUMMARY

REQUIREMENT (check appropriate requirement)		RESPONSIBLE COMMAND
Military Construction Required*	_____	_____TA
Special Project Required*	_____	_____TA
Special Project Required*	_____	_____TSA
Installation Only Required	_____	_____TSA

*See attached preliminary Site Survey

Comments/Remarks:

_____ _____
DATE TRAINING SUPPORT AGENT
BY NAME/TITLE/COMMAND/CODE

The attached initial TSIP documentation (preliminary site survey) is accepted as the identification of facility requirements.

_____ If signed by direction, so state _____
DATE TRAINING AGENT
BY NAME/TITLE/COMMAND/CODE

Distribution List:
TA (TSIP Coordinator)
Learning Center (TSIP Coordinator)
TSA (Cognizant internal codes)

PRELIMINARY SITE SURVEY DATA

1. GENERAL INFORMATION AND TRAINING SYSTEM DATA

a. Date Preliminary Site Survey Conducted (Day/Month/Year):

b. Navy Training System Plan (NTSP) Reference or Establishing Authority: Cite NTSP number, date and status (initial, draft, proposed, etc). If there is no NTSP, cite other documentation, which establishes the requirement, etc. to include date of requirement approval.

c. Operational Use Summary: (UNCLASSIFIED) Describe the operational use of the equipment as it applies to total force use. Note ship classes on which equipment is installed.

d. Training Concept Summary: Describe the scope of training to be established, sustained, or revised as a result of the installation (i.e., Intermediate/Organizational Level Maintenance, Operator Training, etc.). If known, identify course name, title (CIN) and length. If non-specific, so state and describe.

e. Functional Description: Provide a brief functional description of the training equipment. Refer to Sponsor approved requirements documents as appropriate.

f. Listing of Training Equipment to be Installed: Based on the best available information, list the Technical Training Equipment (TTE), Simulator, and Training Device (TD) to be provided, quantity, procuring activity(ies), and delivery status. If applicable, cite any identifying equipment tracking numbers (NTSP, etc.).

g. Interface/Impacts on Other Training Equipment: Describe the interfaces/impacts on other training equipment that will be relocated, and equipment that is presently installed or planned for installation. Consider instances of multiple, phased installations which are covered by other individual TSIPs. Where applicable, reference other TSIPs.

Timing and Synchronization issues must be addressed in the TSIP to document system requirements such as signal type (i.e., 1 PPS, 5 MHz, 100kHz) number of and type of connections to new and existing equipment, and impacts to existing equipment and systems. Specific details of the timing and synchronization system are a required part of the IDD. If new timing and synchronization equipment is required, it must be done in a manner that meets all known requirements and future facilitates expansion plans.

h. Training Equipment to be Replaced: Based on the best information available, list all training equipment that will be replaced and/or relocated as a result of this installation. Include, if known, the intended disposition of removed equipment

consistent with the requirements of OPNAVINST 1500.76A and local authority.

i. Learning Facility (Command/Location): Provide learning facility's address as listed in the current Standard Navy Distribution List (SNDL). Include zip code and Unit Identification Code (UIC).

2. FACILITY DATA

a. Training Equipment Location at Learning Facility:

(1) Building and Room No.:

(2) Floor Plans & Elevations: Provide floor plans and elevations drawings for each room affected as an attachment based on best available information.

(3) Other:

b. Basic Facility Requirements of Training Equipment:

(1) Air Conditioning and Heating:

(2) Water:

(3) Power:

(4) Physical Requirements:

(5) Other:

c. Description of Military Construction (MILCON)/Special Project Requirements: Cite MILCON or Special Project number and any other applicable data.

3. MAJOR MILESTONES

a. Training System Ready For Training (RFT) Date: The CNO established RFT date as set forth in a current Navy Training System Plan or other reference.

b. Beneficial Occupancy Date (BOD): Date facility will be ready to receive the equipment in order to begin the installation.

c. TSIP Data Scheduled Updates (Minimum): Update required (month/year) for MILCON programming. Update required (month/year) for special project programming.

d. Phase II Engineering Site Survey Scheduled Date (Month/Year):

PHASE II ENGINEERING AGREEMENT

INSTALLATION AND TRANSFER REQUIREMENTS
(ENGINEERING SITE SURVEY AND TRAINING SUPPORT PACKAGE ELEMENTS)

FOR

[SYSTEM/EQUIPMENT NOMENCLATURE]

AT

[NAME AND LOCATION OF LEARNING FACILITY TO RECEIVE THE INSTALLATION]

If deemed necessary, note the following:

Phase II elements contain the latest data available at the time of original Phase I release. Though known to be incomplete, they are included solely for information purposes.

TRAINING SYSTEM INSTALLATION PLAN (TSIP)
PHASE II ENGINEERING AND TRAINING SUPPORT PACKAGE ELEMENTS AGREEMENT
FOR INSTALLATION AND TRANSFER REQUIREMENTS
(ENGINEERING SITE SURVEY AND TRAINING SUPPORT PACKAGE ELEMENTS)
TSIP _ – _ _ _ _- (_)

The TSIP Phase II installation (engineering site survey) and transfer requirements (training support package elements) required for transfer of training responsibility for the training system are provided in accordance with OPNAVINST 11102.1.

The list of training support package elements is certified as complete unless otherwise indicated below.

Comments/Remarks:

Add attachments if necessary.

DATE	If signed by direction, so state TRAINING SUPPORT AGENT BY NAME/TITLE/COMMAND/CODE

The attached TSIP Phase II engineering documentation (engineering site survey and listing of training support package elements) is accepted as the determination of installation and transfer requirements and as the basis for transfer of training responsibility.

DATE	If signed by direction, so state TRAINING AGENT BY NAME/TITLE/COMMAND/CODE

ENGINEERING SITE SURVEY AND TRAINING
SUPPORT PACKAGE ELEMENTS

1. GENERAL INFORMATION

a. Date Engineering Site Survey Conducted (Day/Month/Year):

b. Training Course(s) Identification: Identify course name, title (CIN) and course length. If nonspecific, so state and describe.

c. Planned Date of Transfer: Planned date of transfer of responsibility for the training system from the TSA to the TA.

d. List of Equipment:

(1) Technical Training Equipment (TTE): In column format, state the precise nomenclature of the technical training equipment, the quantity to be provided, the procuring activity and the delivery status. If applicable, cite any identifying equipment tracking numbers.

(2) Training Devices: Identify in the same format as paragraph A.4.a.

(3) Training Unique Equipment: Identify in the same format as paragraph A.4.a.

e. System Interface with Other Installed/Future Training Systems or equipment. Update information previously provided in Phase I, A7.

f. For SPAWAR Command, Control, Communications, Computers, and Intelligence (C4I) Training Systems, provide system changes and operating authority documentation such as Interim Authority to Operate (IATO) and Certification Assessment & Summary Evaluation (CASE) Form for the Fleet Readiness Certification Board (FRCB), in accordance with Naval Network Warfare Command (NETWARCOM) INST 12271.1 60 days in advance of the planned installation.

g. Identify the Installation Design Documentation (IDD), including the completed Installation Design Plan (IDP) that will be submitted with phase II of the TSIP.

2. MAJOR MILESTONES: See TSIP Schedule. The TSIP Schedule is presented only as an example. Use flexibility with regard to its content and format in order to best meet individual TSA and TA needs.

SAMPLE TSIP MILESTONE PLAN

TSIP NUMBER: __
TRAINING AGENT: APPROPRIATE LEARNING CENTER
LEARNING FACILITY: _____
FACILITY POC: _____
FACILITY MANAGER: _____

REQUIREMENT ESTABLISHMENT: _____
INSTALLATION MANAGER: _____
PROGRAM MANAGER: _____
EFR ORIGINATOR: _____

CY	200X												200Y												200Z			
FY	200X												200Y												200Z			
ACTION / MONTH	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A
INITIATE PROJECT																												
PRELIMINARY SITE SURVEY																												
ENGINEERING SITE SURVEY																												
BENEFICIAL OCCUPANCY DATE																												
SITE PREP/INSTALLATION PREP																												
TTE/TD/SIMULATOR DELIVERY																												
ENGINEERING DATA SUBMISSION (PHASE II)																												
INSTALLATION																												
CERTIFICATION																												
CURRICULUM																												
SOFTWARE																												
SPARES																												
TEST EQUIPMENT (GEN/SPEC)																												
TOOLS (GEN/SPEC)																												
TECHNICAL DATA SUPPORT PACKAGE																												
INSTRUCTOR/O&M TRAINING																												
OPNAV 4790/CK SUBMISSION																												
ON-SITE TESTING																												
INSTALLATION COMPLETE																												
READY FOR USE (RFU)																												
PILOT																												
READY FOR TRAINING (RFT)																												
TRANSFER SUBMISSION																												
FINAL IDD INCLUDING AS-BUILT DRAWINGS																												

LEGEND 0 CURRENT SCHEDULE X ACTUAL ACCOMPLISHMENT

3. ENGINEERING SITE SURVEY DATA

Include summarized results of the engineering site survey to address what the existing conditions/capacities are versus the new requirements and identify who will perform and provide for the difference.

a. Security and Safety Factors:

(1) Security Classification of Equipment, Courses etc.: Include any ADP security requirements as set forth in OPNAVINST 5239.1B.

(2) Environmental Safety: (Federal, State, Local)

(3) Pressurized Equipment Safety: Identify pressurized equipment safety specifications, as required.

(4) Nuclear Safety: Identify nuclear safety requirements.

(5) Electromagnetic Radiation Safety: Include any RF hazards to personnel, fuel and ammunition.

(6) EM Security (Tempest survey): If required, a TEMPEST Vulnerability Assessment Request must be prepared in accordance with OPNAVINST C5510.93F prior to equipment use.

(7) Eye and Ear hazards: Identify eye and ear safety requirements.

(8) Fire Extinguishment Requirements:

(a) Type of extinguishing agent(s) recommended:

(b) Special precautions to be observed:

(c) Do existing facilities meet this requirement? (If not, explain what must be done and identify the responsible party.)

(9) Airspace Clearance Criteria: (Specify clearance requirements between the equipment and the room to accommodate operation and maintenance tasks, airflow, etc.)

(10) Other: (Specify any other Security and Safety Factors not previously addressed.)

b. Utilities

(1) Air Conditioning

(a) Temperature and Heating: parameters of the equipment: (List high and low temperatures of each unique parameter and summarize total.)

(b) Heating requirements:

1. Room: (List current BTU capabilities.)

2. Equipment: (List equipment BTU requirements.)

3. Do facilities meet this requirement? (If not, explain what must be done and identify the responsible party.)

(c) Air conditioning/cooling requirements

1. Room: (List current BTU capabilities.)

2. Equipment: (List equipment BTU requirements.)

3. Do facilities meet this requirement? (If not, explain what must be done and identify the responsible party.)

(d) Ventilation requirements:

1. Room: (Specify duct and air handling/flow requirements.)

2. Equipment: (Specify duct and air handling/flow requirements.)

3. Do facilities meet this requirement? (If not, explain what must be done and identify the responsible party.)

(e) Humidity Factors:

1. Room: (Specify dew point/relative humidity parameters.)

2. Equipment: (Define operating and non-operating humidity parameters.)

3. Do facilities meet this requirement? (If not, explain what must be done and identify the responsible party.)

(f) Air cleanliness requirements:

1. Room: (Specify air particulate requirements.)

2. Equipment: (Specify air particulate requirements.)

3. Do facilities meet this requirement? (If not, explain what must be done and identify the responsible party.)

(2) Plumbing:

1. Water requirements: (Include flow rate, temperature, purity, etc.)

Do facilities meet this requirement? (If not, explain what must be done and identify the responsible party.)

2. Sewage requirements: (Type, Volume/capacity, Pollution abatement requirements, etc.)

Do facilities meet this requirement? (If not, explain what must be done and identify the responsible party.)

(3) Electrical Power: (Installing activity shall annotate current building drawings to reflect any changes resulting from the installation.) (For preliminary site survey data, list the total estimated VAC, HZ, Amps, and Phase requirements.)

1. Electrical power requirements:

(i) Room: (List current capabilities.)

(Include shunt trip and emergency shutdown requirements.)

(ii) Equipment: (List equipment VDC, VAC, HZ, Amps, and Phase requirement.)

(iii) Do facilities meet this requirement? (If not, explain what must be done and identify the responsible party.)

2. Grounding requirements: (AC, DC, digital, RF, etc.)

Do facilities meet this requirement? (If not, explain what must be done and identify the responsible party.)

3. Requirements for generators, transformers, converters, etc.: (Rating, capacity, etc.)

Do facilities meet this requirement? (If not, explain what must be done and identify the responsible party.)

4. Lighting requirements: (Identify lumens, color, dimming controls, etc.)

Do facilities meet this requirement? (If not, explain what must be done and identify the responsible party.)

5. Uninterrupted power requirements: (Identify facility and equipment requirements by quantity and rating, etc.)

Do facilities meet this requirement? (If not, explain what must be done and identify the responsible party.)

6. Lightning protection requirements: (Identify facility and equipment requirements rating, etc.)

Do facilities meet this requirement? (If not, explain what must be done and identify the responsible party.)

(4) Hydraulics, Compressed Gases, Steam, Petroleum, Oil and Liquids (POL), and Other Fluids: (Identify facility and equipment requirements by quantity, quality, rating, etc.)

(a) Hydraulic power requirements:

(b) Compressed gas requirements:

(c) Steam requirements:

(d) POL product requirements:

(e) Other fluids:

Do facilities meet this requirement? (If not, explain what must be done and identify the responsible party.)

(5) Exhaust Requirements: (State, Federal, Local)(Identify facility and equipment requirements by quantity, quality, rating, etc.)

Do facilities meet this requirement? (If not, explain what must be done and identify the responsible party.)

(6) Noise Abatement Requirements: (State, Federal, Local) (Identify facility and equipment requirements by quantity, quality, rating, etc.)

Do facilities meet this requirement? (If not, explain what must be done and identify the responsible party.)

(7) Telecommunication Requirements: (Identify internal, external requirements, including number of stations, etc.) Consider Communication Connectivity Requirements. Connectivity may be required in support of installation, testing, and normal operations. If existing connectivity is identified and agreed upon during the site survey the TSIP will identify the connectivity and describe which systems or testing requirements this connectivity will support. The TSIP shall specify what resources such as multiplexer or router ports, cable strands, and patch panel ports are reserved for the installation. New terrestrial connectivity is normally ordered via a Feeder Telecommunication Service Request (FTSR). The TSIP will provide sufficient technical circuit data to enable the FTSR originator to prepare the request. The training site is responsible for submitting the FTSR to Defense Information Systems Agency (DISA).

Do facilities meet this requirement? (If not, explain what must be done and identify the responsible party.)

(8) Other: (Specify any other Utilities not previously addressed.)

1. Physical Factors and Requirements:

a. Limitations:

(1) Space:

(a) Minimum physical cube requirements into which the equipment will fit:

(b) Space for foreseeable growth requirements:

(2) Floor loading, false flooring, false overhead, and cable runs/waveguide requirements: (Identify flooring and floor loading requirements.)

(a) Do facilities meet this requirement? (If not, explain what must be done and identify the responsible party.)

(3) Windows and/or special access requirements: (Identify window, door, and any other special access requirements.)

(a) Do facilities meet this requirement? (If not, explain what must be done and identify the responsible party.)

(4) Overhead hoist requirements: (Identify facility and equipment requirements by quantity, quality, rating, etc.)

(a) Do facilities meet this requirement? (If not, explain what must be done and identify the responsible party.)

(5) Storage container and storage area requirements: (Identify trainer requirements by type, size/capacity, etc.)

(a) Do facilities meet this requirement? (If not, explain what must be done and identify the responsible party.)

(6) Security/safety limitation requirements: Identify trainer requirements. Include any classified data in computer memory.

(a) Do facilities meet this requirement? (If not, explain what must be done and identify the responsible party.)

(7) Antennas: (Identify equipment requirements by type, quantity, rating, mounting, etc.)

(a) Do facilities meet this requirement? (If not, explain what must be done and identify the responsible party.)

(8) Other Special Considerations: (Identify trainer requirements and include any quantitative or qualitative data.)

(a) Do facilities meet this requirement? (If not, explain what must be done and identify the responsible party.)

D. TRAINER CONFIGURATION ITEM INDEX

Configuration Before Change				Configuration After Change			
EIC	RIC/APL/AEL #	Part No.	Ref Designator, Model Type & Noun Name	EIC	RIC/APL/AEL #	Part No.	Ref Designator, Model Type & Noun Name

E. TRAINING SUPPORT PACKAGE

1. Parts (Spare/Repair):

DESCRIPTION	IDENTIFICATION	PROCURING ACTIVITY	DELIVERY STATUS

2. Test Equipment:

a. General purpose:

NOMEN-CLATURE	MODEL NO.	COG CODE	FSCM	SCAT	NSN	QTY	PROCURING ACTIVITY	FY FUNDED	DELIVERY STATUS

b. Special purpose:

NOMEN-CLATURE	MODEL NO.	COG CODE	FSCM	SCAT	NSN	QTY	PROCURING ACTIVITY	FY FUNDED	DELIVERY STATUS

3. Tools:

a. General purpose tools:

NOMENCLATURE	QTY	PROCURING ACTIVITY	DELIVERY STATUS

b. Special purpose tools:

NOMENCLATURE	QTY	PROCURING ACTIVITY	DELIVERY STATUS

4. Support equipment:

NOMENCLATURE	QTY	PROCURING ACTIVITY	DELIVERY STATUS

List support equipment such as roll around carts, overhead hoists, workbenches, etc., which allows for training equipment operation and maintenance, or otherwise supports the course of instruction but is not part of the curriculum. Distinguish between GFE and contractor provided equipment.

5. Technical Data Support Package:

IDENTIFIER	TITLE	QTY	PROCURING ACTIVITY	DELIVERY STATUS

Identify all technical manuals, PMS documentation, MRC, etc. that is to be provided.

6. Curriculum Material:

TYPE OF MATERIAL	QTY	PROCURING ACTIVITY	DELIVERY STATUS

List all curriculums to be provided to the TA, including NTSP identified course materials and any contractor developed materials to support training devices. The identification of curriculum deliverables should include items such as Instructor Guides, Trainee Materials, handbooks, etc. Cite the curriculum standard or specification used, if applicable. List all Data Item Descriptions (DIDs) used. List all Training Aids to be provided. Examples include mock-ups, pre-faulted modules, fault insertion aids and unique audio-visual equipment.

7. Software (if applicable):

NOMENCLATURE	QTY	PROCURING ACTIVITY	SOFTWARE SUPPORT	DELIVERY STATUS

a. Operational
b. Maintenance
c. Simulation

8. Other Equipment Documentation:

List all other equipment documentation to be provided, such as software, software licenses, Software Support Activity contact information, and ADP security documentation, custody and inventory records, data lists, parts lists, etc.

9. Unique Identification (UID) Requirements:

Provide UID in accordance with Under Secretary of Defense for Acquisition, Technology and Logistics signed the Policy for Unique Identification (UID) of Tangible Items - New Equipment, Major Modifications and Re-procurements of Equipment and Spares. Refer to DoD 5000.64 "Defense Property Accountability", Acting Under Secretary of Defense (Acquisition, Technology and Logistics) Memorandum "Policy for UID of Tangible Items - New Equipment, Major Modifications, and Reprocurements of Equipment and Spares" of 23 July 2003, and Defense Federal Acquisition Regulation Supplement; DFARS 252.245–7001, Reports of Government Property.

F. INITIAL INSTRUCTOR/SUPPORT PERSONNEL TRAINING REQUIREMENTS

Describe all initial training required for assigned instructor personnel and for follow-on maintenance support prior to the RFT date to include location of the training, length of the training, any special certifications, qualifications or prerequisites required. Use subheadings as required to show the various types of initial training to be provided, e.g., operation, maintenance, other. Include required training for follow-on maintenance support for training equipment through a TA sponsored contractor operation and maintenance (O&M) service or a technical assistance program.

G. CONTRACTOR OPERATION AND MAINTENANCE (O&M) SERVICE/TECHNICAL ASSISTANCE PROGRAM

Identify whether the installed equipment is expected to be maintained through a TA sponsored contractor O&M service or a technical assistance program.

H. ACTIONS AND/OR DECISIONS REQUIRED

ACTIONS REQUIRED

ACTION ITEM	COMMAND ACTION	DUE DATE	STATUS

DECISIONS REQUIRED

ACTION ITEM	COMMAND ACTION	DUE DATE	STATUS

PHASE III
TRANSFER OF TRAINING RESPONSIBILITY
FOR
[SYSTEM/EQUIPMENT NOMENCLATURE]
[LEARNING FACILITY NAME AND L0CATI0N TO RECEIVE THE INSTALLATION]

1. Ship's Configuration Change Form (OPNAV 4790/CK):

Installing activity will initiate and complete OPNAV 4790/CKs and provide them to the Learning Facility 3M Coordinator upon completion of installation. Learning Facility 3M Coordinator will assign a job sequence number and work center to the OPNAV 4790/CKs, sign, and forward to the Configuration Data Manager (CDM).

2. Installation Activity will note that IDD Completion Report submission to the TSA is now required. Forwarding of signed IDD completion report signifies Learning Facility 3M coordinator receipt of these completed forms.

3. TSA FINAL acceptance signifies that OPNAV 4790/CKs have been completely filled out and provided to the Learning Facility 3M coordinator.

4. TA FINAL acceptance signifies that OPNAV 4790/CKs have been submitted by the Learning Facility to the CDM.

5. Validation of Training Support Package delivery will be performed by the Learning Facility in coordination with the TSA.

6. Facility and Trainer As-built Drawings:

a. Immediately upon completion of the installation and check out, the Installing Activity shall deliver redlined IDP drawings to the designated Learning Facility representative. Finished as-built drawings shall be delivered within 60 days following installation and checkout and before final acceptance. The Learning Facility is responsible for providing both a copy of redlined and final facility drawing sets to the local Naval Facilities Engineering Service Center when received.

b. Drawings/diagrams will be developed in digital format, e.g., AutoCAD (dwg), in accordance with the MIL-PRF-5480G and ASME Y14.100-2004 and shall reference codes, specifications, procedures, equipment drawings, and each installation As-Built drawing as appropriate.

c. The following drawing documentation will be maintained as a baseline for the trainers and are therefore considered mandatory for update if impacted: Architectural and Engineering, power distribution, electronic cooling water, HVAC, cableway layouts, facility ground distribution, patch

panel layouts, floor plans and elevations, antenna layouts and elevations, cable block diagrams, circuit wiring detail drawings, wiring tables (i.e., cable running sheets and cross connect records), and distribution frame and junction box layouts.

EQUIPMENT FACILITY REQUIREMENTS
PHASE III
TRANSFER OF TRAINING RESPONSIBILITY
TSIP _ – _ _ _ _- (_)

Signature affirms that Ship's Configuration Change Forms (OPNAV 4790/CK) have been filled out and provided to the Learning Facility. Acceptance of the [Equipment Nomenclature] installed at [Name and Location of Learning Facility to Receive the installation] is:

CONDITIONAL

*Deficiency:	Command and Code Responsible To Correct	Date Correction Will Be Accomplished

* Add attachments if necessary

Responsibility for the above training system (including maintenance the system/equipment), with the exception of those items listed as deficiencies, is hereby transferred and CONDITIONALLY accepted by the Training Agent in accordance with the TSIP Phase II Engineering Agreement for Installation and Transfer Requirements.

If signed by direction, so state _____
TSA BY NAME/TITLE/COMMAND/CODE/DATE

If signed by direction, so state _____
TA BY NAME/TITLE/COMMAND/CODE/DATE

FINAL

Responsibility for the above training system (including maintenance responsibility for the system/equipment) is hereby transferred and accepted by the Training Agent in accordance with the TSIP Phase II Engineering Agreement for Installation and Transfer Requirements.

If signed by direction, so state _____
TSA BY NAME/TITLE/COMMAND/CODE/DATE

If signed by direction, so state _____
TA BY NAME/TITLE/COMMAND/CODE/DATE

7. TSIP DEFICIENCIES

a. A well-written deficiency in a TSIP clearly and briefly states the problem. These descriptions must specifically identify the action and deficiency number and, where required, include specific nomenclature (i.e., Title, Part Number, Control Number, and quantity). Additionally, the following items must be assigned during the equipment transfer process to identify who has responsibility for the corrective action: (1) Responsible Command/Code; (2) Estimated Completion Date; and (3) Remarks, as required, that will provide further assistance for timely completion of the action. These deficiencies should also be prioritized for completion according to the following schedule:

Priority 1- An error which prevents the accomplishment of an operational or mission essential function in accordance with official requirements, or which jeopardizes personnel and equipment safety.

Priority 2- An error which adversely degrades the accomplishment of an operational or mission essential function or prevents the accomplishment of an operational or mission essential mode, in accordance with official requirements and for which no alternative work-around solution exists.

Priority 3- An error which adversely degrades the accomplishment of an operational or mission essential mode or prevents the accomplishment of an operational or mission essential sub-mode; or an error which adversely degrades the accomplishment of an operational or mission essential function or prevents the accomplishment of an operational or mission essential mode and for which there exists a reasonable work-around solution.

Priority 4- An error that is an operator inconvenience or annoyance and does not adversely degrade a required operational or mission essential function/mode/sub-mode.

Priority 5 - All other errors including documentation.

b. These deficiencies when properly written will consist of one or two sentences of description and identifiers, as described above. If specific spare part lists, etc. are available and space is limited in the Engineering documentation of the TSIP, use appendices. The lists may be merely reference materials for a specific deficiency, such as an itemization of courses and curricula or a proviso guaranteeing the return of borrowed or residual equipment to the installer or provider of the equipment. An effort should be made to see if such references are available and obtainable for inclusion in the TSIP.

8. Submission of OPNAV 4790/CK forms is required at the time of the Post Installation Brief. Failure to submit these forms at the time of the Post Installation Brief will not be accepted as a deficiency. Installation Activity must now forward the signed IDD

Completion Report with deficiency list (as applicable) and Post Installation Briefing Checklist to the TSA for TSIP Final transfer to be processed. Installing Activity and Facility 3M coordinator signature on the IDD Completion Report form signifies that completed OPNAV 4790/CK forms have been received and are being processed.

TSIP
APPENDIX A
POINTS OF CONTACT

Points of Contact (Command/Code/Name/Title/Telephone (DSN/COMM)):

a. OPNAV Sponsor:
List CNO Program Sponsor and/or Mission Sponsor.

b. Training Support Agent (TSA):
Program/Project Manager, ILS Manager, TSIP Manager, etc.

c. Training Agent (TA):
List points of contact.

d. Learning Facility:
As a minimum, include the Facility Manager and a point of contact within the applicable academic department.

e. Installation Activity:
Installation Project Engineer or Manager.

f. CNI/Naval Region/Facility Engineering Center:
List points of contact.

TSIP
APPENDIX B

Installation Design Documentation

Title of Installation

Location (Including Building and Room No.)

Date----------

Change/Revision---------

TSIP Appendix B

Installation Design Documentation
Table of Contents

Items identified in this typeface are additional requirements for submission/ approval of TSIP Short Form for Training System Changes.

TSA Approval Cover Sheet for TSIP Short Form, if approved for use. (See form on last page of this enclosure)

TSIP Appendix B

Installation Design Documentation
Table of Contents (Continued)

IDP Attachments: Identify necessary attachments, such as the items listed below, required to support this TSIP. If existing facility and trainer drawings are not impacted, so state.

A	Floor Plans and Elevations Drawings
B	Power Distribution Drawings
C	Electronic Cooling Water (ECW) Drawings
D	Heating, Ventilation and Air Conditioning (HVAC) Drawings
E	Cableway Layouts Drawings
F	Facility Ground Distribution Drawings
G	Patch Panel Layouts Drawings
H	System Configuration Detail Drawings
I	Antenna Layouts and Elevations Drawings
J	Cable Block Diagrams
K	Circuit Wiring Detail Drawings
L	Wiring Tables (Cable Running Sheets & Cross Connect Records)
M	Distribution Frame and Junction Box Layouts Drawings
N	Installation Material Lists
O	Equipment Technical Data Summary Drawings
P	Installation Detail Drawings (i.e. Foundations, Mechanical Assembly, Mounting)

Provide the following as attachments as necessary to support TSIP Short Form:
Installation Procedures, Test Procedures, Equipment Unique Identification Requirements

1. Planning Data

1.1 Title of Change:

Enter a complete, descriptive change Title for the trainer or change being installed. The title should include the official nomenclature of the configuration item (e.g., unit, equipment, software, system/subsystem). All abbreviations and acronyms in the title shall be spelled out.

1.2 Impact Summary:

Enter a complete high-level executive summary description of the hardware and software changes included as part of this trainer change. This is to include information on major equipment(s) being added or deleted, and their impacts to cabling requirements, foundations, electronic cooling water, heating, ventilation, or air conditioning, and software changes required as part of the installation. This section should also discuss any problems or deficiencies in the existing system/subsystem corrected by the installation of this change. This section should also provide information concerning any prerequisite, conjunctive, or related changes and information on any temporary changes closed out by this installation.

Estimated man-hours and Items affected:

The total estimated man-hours required to install/test the IDD shall be provided. The total requirements shall be broken out as to Pre-Installation Testing, Site Preparation Testing, Check Out and Grooming Testing, and Certification and Acceptance Testing (include test of all training system elements). These summary man-hour estimates shall correspond to the detailed POA&M provided in Section 2.4 of the IDD.

1.3 Site Applicability:

Location Building Room(s)

Provide complete identification of the Learning Facility, including building number, floor, room(s), etc.

1.4 Security and Safety Requirements:

Provide information and/or references to security and safety issues that are applicable to this installation. This includes such items as references to the local command's Lock Out and Tag Out procedures, security access requirements, or equipment security (classified parts or software, or EMI handling requirements etc.) This section should also identify any related security and safety issues that are the responsibility of the Training Command to provide in support of the installation.

2. Accomplishment Plan

2.1 Site Preparation:

Provide a description of all site preparation work to be performed, including utility requirements such as sewage, hydraulics, compressed gasses, steam, petroleum oil or other fluids, special exhaust requirements, with particular emphasis on areas requiring special considerations or outside assistance by the installing activity. The site preparation description should identify the installation process, what will take place, and who will be involved.

2.2. Installation:

Provide a general description of the equipment installation work to be performed. The detailed hardware and software installation procedures to be followed are to be provided in Section 3 of the IDD. All contractors and/or government activities that are to be involved in the actual equipment installation and their responsibilities, as part of the installation process, should be identified.

2.3 Detailed POA&M Schedule:

The Plan of Actions and Milestones will provide a detailed installation schedule reflecting start/stop dates for all major events required as part of the installation process. The POA&M will be jointly developed by the installing activity, the learning facility, and testing activities (if any). The Installing Activity will coordinate the development of the POA&M with the Learning Facility. This POA&M should normally reflect the data elements shown on the following sample IDD Installation Schedule.

2.4 Installation Parts and Materials:

Item No.	Description	Cage & Part Number	Qty	Provide By	Disposition/Remarks

Separate lists for hardware and software shall be provided to identify all Government Furnished Material (GFM) and Contractor Furnished Material (CFM) required by the installation. These lists shall as a minimum include the data elements shown above with the providing activity and the disposition of any excess/unused materials clearly identified. Included in this section are any 2D or 3D mockups required by the installing activity. The listing of GFM will be provided as GFI to the installing activity and is to identify all items the installing activity is to receive as part of pre-cable kits or other installation materials required by the installation. The CFE list will reflect all material being procured or supplied by the installing activity.

2.5 Special Tools and Test Equipment:

Item No.	Nomenclature	Identification No.	Qty	Provided By	Disposition/Remarks

These lists shall as a minimum include the data elements shown above with the providing activity and the disposition of any excess/unused test equipment clearly identified. This would include such items as automatic cable testers or other specialized tools and equipment not normally available to the installing activity.

2.6 Documentation Required:

Title	Number	Qty	Provided By	Remarks

These lists shall as a minimum include the data elements shown above with the providing activity and the disposition of any excess/unused documentation clearly identified. The types of documentation to be identified may include, but is not limited to the following: Technical Manuals (TM), Preventive Maintenance System (PMS) documentation, Repair Standards, Test Procedures, Drawings, Software documentation, or specifications and other related documents. The change or revision level is to be provided where appropriate.

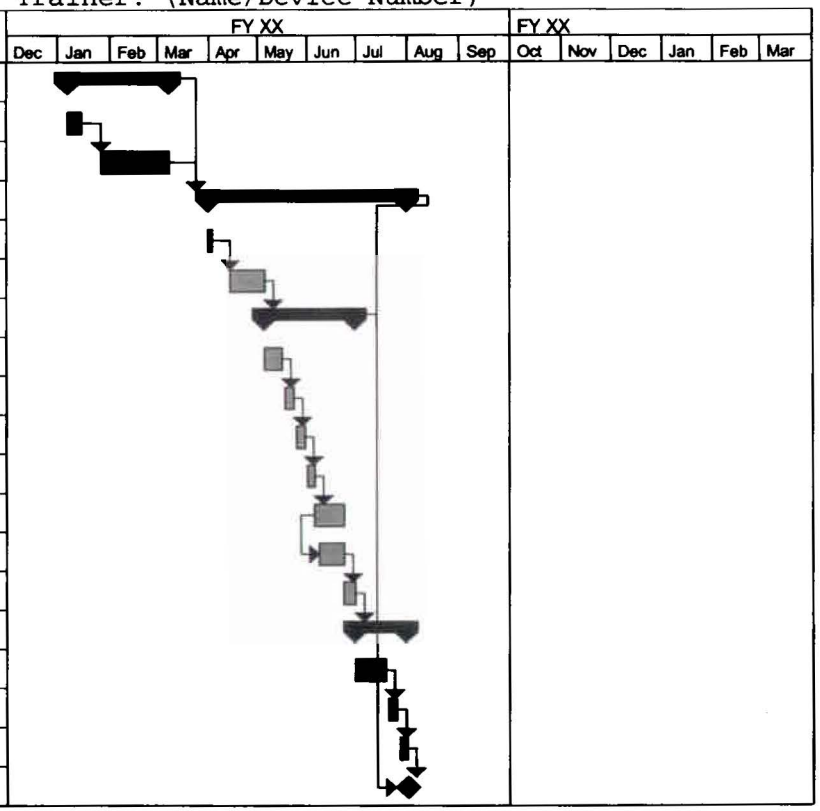
3. Installation Requirements:

This section is to contain the detailed hardware and software installation procedures to be followed. The procedures should be written to a level of detail so that any qualified technician would be able to accomplish the installation solely using the documentation and the drawings provided in the IDD package. Each section should contain all necessary references to the associated drawings provided as attachments to the IDD.

Trainer Installation Schedule

TSIP No. Learning Facility: (School Name) Trainer: (Name/Device Number)

Task Name	Start	Finish
Design Development		
Preliminary Lab Arrangement Drawings		
Trainer Change Installation Documentation		
Installation		
Pre-Installation Briefing with Learning Facility		
Trainer Equipment & ILS Staged on Site (prior to install)		
Lab Down		
Ripout		
EAFW		
HVAC		
Foundations		
Cabling		
Equipment Installation		
Other (Specify) Raised Deck		
Test and Checkout		
Site Preparation Testing		
Equipment Groom & Test		
Certification and Acceptance Testing		
Ready For Use (RFU)		



Enclosure (2)

3.1 Equipment Configuration:

Ref Des	Nomen	Part No.	Power	Cooling	HVAC	Found-ation	Cabling	Wireway	Ground-ing	Arrangement

Provide a summary sheet of all equipment being added or deleted (by nomenclature and part number), and whether it's addition or removal will have an impact on power, cooling, air conditioning, cabling, wireways, foundations, and arrangements. This is to be a quick reference chart; with just an "X" placed under each category to signify that particular piece of equipment will impact that installation category.

Part No.	Nomenclature	Classification	Revision/ Version	Qty	Provided By	Disposition/ Remarks

Provide a summary sheet of all software required as part of this installation (by nomenclature, part number, and revision/version level). If none, so state.

Reference Designator	Nomenclature	Mfg. Part No. & CAGE Code	NSN	Qty	Provided By	Disposition/ Remarks

Provide detailed pre and post installation hardware configuration information. Reporting shall be a top down breakdown to the Lowest Repairable Unit (LRU) and will reflect impacts to the configuration status accounting from this installation.

3.2 Power Requirements:

Provide or provide as an attachment, information showing the power requirements, power panel, breaker number/size, and cable designation/type for each equipment that requires electrical connection. If no impact, so state.

3.3 Electronic Cooling Water (ECW) Requirements:

List or provide as an attachment, all equipment requiring cooling water. Specify cooling requirements, manifold, supply and return headers, gauges/valves, flow meters, etc., required for each equipment. If no electronic cooling water requirements, so state.

3.4 Heating, Ventilation, and Air Conditioning (HVAC) Requirements:

Provide or provide as an attachment, information showing the ventilation changes required to ducting, diffusers, controllers, dampers, etc. If no ventilation changes are necessary, so state.

3.5 Foundation Requirements:

Identify or provide as an attachment, information that shows the foundation changes required as part of this installation. If no foundation changes are required, so state.

3.6 Cable Requirements:

List or provide as an attachment, complete wiring table information showing equipment, part numbers, vendor information, cable number, cable class, EMI/EMC, unit, jack number, plug type, backshell/clamp, and cable type. If no cable requirements, so state.

3.7 Cable Routing/Wireway Requirements:

List or provide as an attachment, information showing all necessary cable routing information, trays, penetrations, wireways, and hangers, and cable length required for the proper cable installation. If no cable routing requirements, so state.

3.8 Grounding Requirements:

Show or provide as an attachment, all necessary equipment grounding information required for proper cable installation. This should include equipment identification, terminal number, cable designation, ground termination, and hardware required and quantity. If no grounding requirements, so state.

4. Testing

Identify all of the Test Procedures to be conducted as part of the installation. These procedures should describe the type of testing to be accomplished, the test documents to be followed, the type of tools and test equipment (both General Purpose and Special Purpose) to be used, the safety practices to be followed, and identify the personnel to be involved in performing and witnessing the testing. NOTE: The actual Test Plans and/or Test Procedures are to be provided as an attachment or presented as separate documentation to the Learning Facility prior to testing. A copy of the final redlined and marked-up procedures will be provided to the Learning Facility.

Testing will normally be identified as one of the following two types of testing:

Pre-Installation Testing: Includes all operability testing necessary to ensure that an individual trainer or training system, including related data processing hardware, software, and interfaces are operating in accordance with individual Trainer System Specifications or other documentation prior to any new equipment or modifications being installed. This Pre-Installation Testing (or baseline testing) may also include system level operability tests to verify that an entire Training System, including subsystems and multi-trainer interfaces, operates and performs as a complete and composite

system within tolerances and parameters specified in the governing Trainer System specifications. Any pre-existing discrepancies noted by this testing are the responsibility of the Learning Facility to correct and not a responsibility of the installing activity. The installing activity in consultation with the Learning Facility must determine if these problems must be corrected prior to the start of the Training System Change installation, and what re-testing is required once the pre-existing problem has been corrected.

Post Installation Testing: Verifies that the newly installed equipment is working properly and has not adversely impacted the operation of the trainer. This testing is generally identified by the following four phases:

- Phase 1 Testing - External Hardware Inspection.
- Phase 2 Testing - Cable Continuity and Power Testing.
- Phase 3 Testing - Equipment Power Up and Check Out, Grooming, and Post Installation System Testing.
- Phase 4 Testing - Certification and Acceptance Testing

Phase 1 and Phase 2 Testing includes facility power verification (voltage and phase), power cable verification, pre-equipment installation tests; hydrostatic pressure tests, cleaning tests, power/water/hydraulic interface validation tests; and cable continuity and insulation resistance tests. It also includes the external examination of equipment before any power being applied to the equipment. If the external examination shows the potential for internal damage, the TSA will be notified.

Phase 3 Testing includes Equipment Check Out, Grooming, and Post-Installation Testing. It provides for power application to equipment and the performance of all operability testing necessary to ensure that an individual subsystem and/or standalone Trainer, including related data processing hardware, software and interfaces are operating in accordance with individual Trainer or Trainer System specifications. This testing will also include system level operability tests to verify that an entire Trainer System, including subsystems and multi-trainer interfaces, operates and performs as a complete and composite system within tolerances and parameters specified in the governing Trainer System specifications.

Phase 4 Certification and Acceptance Testing consists of portions of the equipment check out and groom tests that demonstrate trainer performance within the approved design and performance specifications. This testing is a prerequisite for turnover of the trainer to the Learning Facility. Learning

Facility and/or TA's O&M Services personnel will observe/participate in the Certification and Acceptance Testing.

5 Training System Change Installation and Logistic Support

5.1 Configuration and Equipment Listing for Hardware and Software:

5.1.a. Configuration Item Index of all Tactical/Modified Tactical Hardware/Software installed.

Tactical HW/SW Configuration Before Change					Tactical HW/SW Configuration After Change				
HSC/ FGC/ RIC	Model Type & Noun Name	Cage/ Part No.	Rev	Qty	HSC/ FGC/ RIC	Model Type & Noun Name	Cage/ Part No.	Rev	Qty

5.1.b. Configuration Item Index of all Training Device/Simulator Hardware/Software installed.

HW/SW Configuration Before Change					HW/SW Configuration After Change				
HSC/ FGC/ RIC	Model Type & Noun Name	Cage/ Part No.	Rev	Qty	HSC/ FGC/ RIC	Model Type & Noun Name	Cage/ Part No.	Rev	Qty

5.1.c. Commercial Off the Shelf (COTS)/Simulator/Stimulator Hardware/Software installed.

COTS HW/SW Configuration Before Change				COTS HW/SW Configuration After Change				
Model Type & Noun Name	Serial No./	Rev	Qty	FGC RIC	Model Type & Noun Name	Serial No./	Rev	Qty

Provide detailed pre and post installation hardware and software Configuration Item Index (CII) information for all Tactical, TD/Simulator and COTS equipment (where applicable). Section 4.1.a will be a top down breakdown to the Lowest Provisioned Unit and will reflect all impacts to the configuration status accounting from this installation. This information will be reported to the Configuration Data Manager (CDM) for the Learning Facility via the 4790/CK as required by OPNAVINST 4790.4 series.

5.2 Classified Material installed/removed:

Classified Material to be installed or removed					
Model Type & Noun Name	Classification	Qty	Installed	Removed	Remarks

List only those materials that are classified and will as a minimum include the data elements shown above. All classified material will be handled in accordance with OPNAVINST 5510.1H.

5.3 Documentation:

Documentation							
Doc Type	Title	Class	Number	Config Before	Config After	Provided By	Provided Y/N
SSM							
TM							
MP							
MIP							
MRC							
PFM							

This list includes but is not limited to the data elements shown above with the providing activity and the disposition of any of the documentation upon completion of the installation

clearly identified. The types of documentation to be identified may include, but are not limited to the following: Ship Systems Manuals (SSM), Technical Manuals (TM), Preventive Maintenance System (PMS) such as (MP, MIP, MRC etc) Repair Standards, Drawings or Sketches, Software documentation or specifications, PreFaulted Modules (PFM's and other related documents. The change or revision level is to be provided where appropriate.

Drawings or sketches are to be provided as IDP Attachment "A". Room arrangement drawings or sketches are required whenever there are changes in the arrangement of a room or equipment rack. When a third party is installing, cabling drawings or sketches must identify the cable numbers and the jack numbers that identify how the equipment is to be connected within the trainer.

5.4 Training System Change Marking and Identification Plates

This section will provide detailed instructions for the placing of identification markings, nameplates, information plates, etc. on the equipment. MIL-STD-130 and MIL-P-15024/10 can be used. Nameplates and information plates will be mounted in a conspicuous place generally on the front of the item. Change label plates will be located as near as possible to the equipment nameplates. Systems or set nameplates will be mounted on the principal or most prominent item of the major assembly. Plates will be located in easily accessible places during operation. The mounting and location of the plates will be shown on the assembly drawing of the item. Plates will be positioned to not interfere with controls or obscure other required information.

6 Life Cycle Integrated Logistics Support Requirements

6.1 On-Board Repair Parts (OBRP)

Nomenclature	Cage Code	Part #	NICN/ NIIN	Qty/Site	Estimated Delivery Date (EDD)

Provide complete identification of all parts being provided to the Learning Facility as spares to support the repair and maintenance of this equipment/change.

6.2 Tools and Test Equipment:

This section should identify all new Tools and Test Equipment required to operate or maintain the equipment as a result of this change. The disposition of the test equipment at the conclusion of the installation must be clearly identified. This would include such items as automatic cable testers or other

specialized tools and equipment not normally available at the Learning facility.

6.3 Maintenance Responsibilities:

6.3.1 Corrective & Preventive Maintenance:

Identify the activity responsible for corrective and preventive maintenance of this equipment, e.g., Local Navy Authority (LNA), TA's O&M Services Contractor, PM, etc. If it's to be maintained by the TA's O&M Services personnel, then provide the status of the actions taken to incorporate coverage for this equipment in the TA funded contracts and the effective date of coverage. Learning Center approval must be received by the PM for inclusion into the O&M Services contract.

6.3.2 Overhaul Requirements:

Identify all newly installed equipment that is overhaul worthy and provide suggested periodicity. If equipment is not overhaul worthy insert the following, "Installed equipment is not overhaul worthy".

7. Training:

Provide information on all training and training materials being provided/updated as a result of this installation.

7.1 Curriculum Materials:

CIN / Pub #	Title.	Rev/ Chg #	Classification	Qty/ Site	Estimated Delivery Date (EDD)

Identify course name, number (CIN), and status of the training materials if not provided as part of the installation kit. If no impact to training materials, enter N/A for Not Applicable. The identification of curriculum deliverables should include items such as Instructor Guides, Trainee Materials, Interactive Multimedia Instruction (IMI), handbooks, etc. List all Training Aids to be provided. Examples include audio/visual material, mock-ups, pre-faulted modules, fault insertion aids and unique audio-visual equipment.

7.2 Instructor/O&M Training:

Describe all initial training being provided at the time of installation. Use subheadings as required to show the various types of initial training to be provided including the number of hours/days involved. Include required training for assigned instructor personnel and for follow-on maintenance support for the training system.

8. Post Installation Briefing

Following the installation of a Training System Change, the Installing Activity will conduct a Post Installation Brief with the installing activity and the Learning Facility. During this brief, 4790/CKs and any red-lines to the Training System Change documentation and/or trainer drawings will be turned over to the Learning Facility by the installing activity or specific arrangements made to as when they will be turned in. During this briefing, the status of all ILS/Training materials to be provided as part of the Training System Change installation will be reviewed, (OBRPs, tools, test equipment, technical manuals, PMS documentation, and training materials), will be verified as delivered, or noted as an installation discrepancy. Status of all installation discrepancies, resolution responsibility, and schedule for resolution will be discussed at this meeting.

8.1 Completion Reporting:

The TSA/Installing Activity will coordinate the review and completion of the attached Post Installation Completion Report. The Learning Facility will complete the Post Installation Completion Report (CR). The completion of the CR documents the completion of the installation by the Installing Activity and the acceptance of the trainer by the Learning Facility.

The completion of the CR signifies that the trainer is Ready For Use (RFU) by the Learning Facility for instructor familiarization and to conduct training. Any outstanding discrepancies will be noted on the CR and tracked until they are satisfactory resolved. The TSA/Installing Activity will provide copies of the completed CR to the Commanding Officer of the Learning Facility and the applicable Learning Center Coordinator following the Post Installation Brief.

TSIP Short Form

Training System Change
Cover Sheet

{Change Tracking Number}

{Title of Change}

Applicable Ship Classes

Applicable Learning Facilities

Prepared by: {Name/Address/Phone No. of Preparer}

Prepared For: {Name/Address/Phone No. of Sponsor}

Reviewed by: _____ _____
Date:

Approved by: _____ _____
Date:

This cover sheet is used for approval of Training System Changes to existing capabilities at a Learning Facility and is only used in conjunction with the TSIP Short Form, i.e., the modified IDD